REMARKS

These remarks are set forth in response to the Office Action". As this amendment has been timely filed within the three-month statutory period, neither an extension of time nor a fee is required. Presently, claims 1 through 20 are pending in the Patent Application. In paragraph 1 of the Office Action, claims 1-3, 5-12, 16 and 17 have been rejected under 35 U.S.C. §102(e) as being anticipated by United States Patent No. 6,373,430 to Beason et al. ("Beason"). In paragraph 2, claims 4, 13, 14, 18 and 19 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Beason in view of United States Patent No. 5,422,816 to Sprague et al. ("Sprague"). Finally, in paragraph 3, claims 15 and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Beason in view of United States Patent No. 5,263,195 to Panther et al. ("Panther").

In response, the Applicants have cancelled claims 1 through 3, 5 through 6, 8 through 12, and 16 through 17. The remaining dependent claims 4, 7, 13 through 15, and 18 through 20 have been amended only to include the limitations of the independent base claim and any intervening claims. Specifically, based upon a thorough review of the cited art as applied to dependent claims 4, 7, 13 through 15, and 18 through 20, the Applicants respectfully traverse the rejections on the art as the Applicants believe that each of the cited references, whether considered alone or in combination with on another, fail to teach each and every recited limitation. Prior to a more in depth discussion of the rejections on the art, however, a brief review of the Applicants' invention is appropriate.

The Applicants have invented a global positioning family radio service and apparatus. The invention can include a personal radio services ("PRS") device configured with a GPS

receiver so that location based information can be shared with another PRS device communicatively linked to the PRS device in a private, two-way voice communications session. Specifically, the location based information can be received from the GPS receiver and modulated into a carrier signal to be transmitted over a private, two-way voice communications link to another PRS device.

More specifically, a PRS device which has been configured according to the Applicants' invention can include componentry typically found in a conventional wireless RF communications device. Such componentry can include an antenna, an RF transmitter/receiver, a microphone and a speaker. The PRS device also can include an *identification tone generator* for generating identification tones, and an encoder/decoder for encoding the identification tones into a signal which can be RF transmitted to recipient PRS devices.

Importantly, the PRS device also can include a GPS receiver a positioning information processor and a display. The GPS receiver can receive positioning data from a constellation of GPS satellites (typically four satellites). The GPS positioning data which has been received can be processed in the positioning information processor. Specifically, the positioning information processor can determine from the raw GPS positioning data the present position of the PRS device. The positioning information processor further can determine additional positioning data based upon the raw GPS positioning data, *for example the range and bearing of another PRS device relative to the PRS device*. Finally, the positioning data can be displayed in the visual display.

Notably, *privacy codes* can be utilized to control the transmission of positioning data to other PRS devices. Specifically, privacy codes can be used to limit the ability of PRS devices to

engage in a two-way voice communications session. For example, some PRS devices use privacy codes to de-scramble scrambled voice communications. In any case, privacy codes can be used to restrict access to positioning data transmitted between communicating PRS devices.

Turning now to the rejections on the art, In paragraph 1 of the Office Action, claims 1-3, 5-12, 16 and 17 have been rejected under 35 U.S.C. §102(e) as being anticipated by Beason. Beason relates to a portable GPS/radio unit configured for communications over a wireless radio network. The GPS/radio unit can include each of a GPS receiver, a radio receiver for communicating with another GPS/radio unit, and a processor calculating the location of the unit, and a display for indicating the location of the other unit. Referring specifically to the application of Beason to the rejected claim 7, the recited portions of Beason (Figure 4, columns 1, 3 and 4) do not disclose the display of a "bearing" and a "range" for the other unit. Bearing and range are metrics ordinarily associated with radar sensing and sonar sensing. In Beason, only the display of a location of another unit is disclosed. Accordingly, Beason does not teach every explicitly recited limitation of claim 7.

In paragraph 2, claims 4, 13, 14, 18 and 19 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Beason in view of Sprague. Sprague relates to a portable personal navigation tracking system. The system can include a GPS receiver, a modem and a "continuous tone controlled sub-audible squelch controller that modulates a radio transceiver interface with a discrete tone such that both voice and data may share a common radio channel." The combination of Sprague and Beason have been cited for teaching the claimed generation of "identification tones" in which positioning data for a specific PRS device can be modulated and

from which positioning data for a specific PRS device can be demodulated. Yet, Sprague does not disclose the use of "identification tones".

In fact, the continuous tone of the squelch controller cannot be used to identify a transceiver because all tones in Sprague are uniform and hence not "identification" tones. The explicit claim language of dependent claims 4, 13, 14, 18 and 19 require the use of an "identification" tone however which can be used by a receiving PRS device to identify the specific sender of positioning data encoded and modulated on top of received tones. The configuration of Sprague would defeat the intended operation of the Applicants invention due to its inability to identify the sender of the tone. Accordingly, the combination of Beason and Sprague does not teach every explicitly recited limitation of claims 4, 13, 14, 18 and 19.

Finally, in paragraph 3, claims 15 and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Beason in view of Panther. Panther relates to a legacy pager which essentially can be described as a superheterodyne radio receiver. The pager can process received messages which can include commands directed to the processing of a received message in the pager. The instruction set for those commands can include the combination of code words to decrypt a received message. Notwithstanding, the instruction set wholly lacks any structure or recited methodology for "encoding positioning data using a privacy code prior to" the transmission of the positioning data. Rather, Panther merely teaches the use of a code word to decrypt incoming data.

Privacy codes are not comparable to ordinary code words known in the pager arts. Specifically, within the field of PRS, privacy codes can be used to scramble and descramble voice communications between PRS devices to ensure the privacy of a two-way conversation.

Without privacy codes, anyone with a radio receiver could eavesdrop on the conversation between two PRS devices. As recited in claims 15 and 20, the existing privacy codes for PRS devices can be utilized to ensure the privacy of positioning data of the PRS devices so that one cannot access the positioning data without authorization. Hence, to utilize pre-existing privacy codes in a PRS device to ensure the privacy of positioning data as shared between PRS devices is not shown by the combination of Beason and Panther.

In sum, the Applicants believe that the amended, non-cancelled claims 4, 7, 13, 14, 15, 18, 19 and 20 distinguish over the cited art and stand patentable and ready for an indication of allowance. To that end, the Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. §§ 102(e) and 103(a) based upon the foregoing remarks. This entire application is now believed to be in condition for allowance. Consequently, such action is respectfully requested. The Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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